ABSTRACT OF DISCLOSURE

When the present invention is applied to a DVD recording apparatus, a data-frame generation circuit puts input user data into frames and a scramble circuit scramble the data using Maximum-length sequences, then an ECC block construction unit constructs ECC blocks and a RLL (1, 7) modulation unit performs RLL modulation to generate recording data. In addition, in the scramble circuit, Maximum-length sequences generation circuit generates preset Maximum-length sequences and a conversion circuit selectively converts this Maximum-length sequences to different random series based on recording position data for the position on the disk, then an EXOR circuit takes the exclusive OR of the input data and the converted random series to scramble the input data, making it possible to perform highly reliable scrambling with little correlation between pairs of adjacent tracks on the disk.